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INSTALLATION RESTORATION HISTORY, PROCESS, AND SITE STATUS

for

NAVAL EDUCATION AND TRAINING CENTER, NEWPORT, RHODE ISLAND

Northern Division
Naval Facilities Engineering Command
Contract Number N62472-90-D-1298
Contract Task Order 0218

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Brown & Root Environmental

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INSTALLATION RESTORATION HISTORY, PROCESS, AND SITE STATUS for NAVAL EDUCATION AND TRAINING CENTER, NEWPORT, RHODE ISLAND

COMPREHENSIVE LONG-TERM ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
CS	Confirmation Study
CERCLA	Comprehensive Environmental Response Compensation and Liabilities Act
DERP	Defense Environmental Restoration Program
DFSP	Defense Fuel Supply Point
DOD	Department of Defense
EFD	Engineering Field Division
EPA	Environmental Protection Agency
FFA	Federal Facilities Agreement
FUDS	Formerly-Used Defense Site
FS	Feasibility Study
FSP	Field Sampling Plan
HASP	Health and Safety Plan
IAS	Initial Assessment Study
IR	Installation Restoration
IRA	Interim Remedial Action
QAPP	Quality Assurance Project Plan
NACIP	Naval Assessment and Control of Installation Pollutants
NAVFACENGCOM	Naval Facilities Engineering Command
NCP	National Contingency Plan
NETC	Naval Education and Training Center
NEESA	Naval Energy and Environmental Support Activity
NORTHDIV	Northern Division NAVFACENGCOM
NPL	National Priorities list
NUWC	Naval Undersea Warfare Center
PA/SI	Preliminary Investigation/Site Assessment
RAB	Restoration Advisory Board
RI	Remedial Investigation
RIDEM	Rhode Island Department of Environmental Management
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RPM	Remedial Project Manager
SASE	Study Area Screening Evaluation
SER	Shore Establishment Realignment
SOW	Scope of Work
TRC	Technical Review Committee
TRC-EC	TRC Environmental Corporation

1.0 INTRODUCTION

This report updates a document entitled, "Scope of Work RI/FS Activities", dated December 1992 that provided an overview of the Installation Restoration (IR) program being conducted at the Naval Education and Training Center (NETC) in Newport, Rhode Island. The document identifies past environmental work completed at NETC, discusses the IR cleanup process activities, includes the status of each of the 19 sites, and provides a framework and estimated schedule to complete the remaining components of the investigation/cleanup process.

The remedial response process that is being followed at NETC Newport is shown in Figure 1.

1.1 GOALS

The goals of the IR process are to:

- Comply with applicable federal, state, and local requirements that bear on the IR program.
- Develop partnerships with federal, state, and local regulatory agencies by identifying points of contact, keeping them informed of IR activities, and soliciting their comments on those activities.
- Involve the local community in the IR program by establishing methods of communication with community members, making IR information available in a timely manner, providing opportunities for public comment on IR documents, considering those comments in IR decision making; and establishing Restoration Advisory Boards.
- Take immediate action to prevent people from exposure to contamination and remove imminent threats to health. Use resources to address the highest risk sites first.
- Demonstrate a preference for action by removing high concentration sources of contamination floating on groundwater; stabilizing or containing contamination;

conducting interim actions; and identifying operable units or partial actions that can proceed in advance of final remedies.

- Consider planned land use in developing cleanup strategies.

- Ensure that actions necessary to protect human health and the environment are conducted before property sale or transfer.

1.2 SCOPE

This document contains information about the 1983 Initial Assessment Study (IAS - Envirodyne Engineers), the 1986 Confirmation Study (CS - Loureiro Engineering Associates), the status of several Study Area Screening Evaluations (SASEs), five Remedial Investigation/Feasibility Studies (RI/FSs), and two Records of Decision. In addition, the report addresses the process used to implement cleanup activities, the history of each site, and the schedules for submission of documents necessary to implement those cleanup actions.

2.0 BACKGROUND

This section provides summaries of NETC's location, its history, and a chronology of activities that bear on its IR program.

2.1 LOCATION

The NETC is located along the western shore of Aquidneck Island, Newport County, Rhode Island, within the former Newport Naval Base. Aquidneck Island is comprised of three towns; Newport, Middletown, and Portsmouth. NETC provides training and support services. A plan indicating the location of the Newport Naval Base is provided as Figure 2.

Nineteen sites are being or have been studied under the IR program. A summary of site characteristics, studies completed, and plan of action for each is provided in Table 1. Table 2 contains a summary of activities for each of these sites. The location of each site is depicted in Figure 3.

2.2 HISTORY

The entire NETC was listed on the U.S. Environmental Protection Agency (EPA) National Priorities List (NPL) of abandoned or uncontrolled hazardous waste sites in November 1989. The NPL identifies those sites that may pose a significant threat to public health and the environment. The listing for NETC also includes: i) the real property comprising the Naval Undersea Warfare Center (NUWC)(formerly the Naval Underwater Systems Command (NUSC) Division Newport), which is contiguous to NETC Newport; and, ii) those portions of Gould Island that are owned by the Navy.

A Federal Facility Agreement (FFA) was signed by the U.S. Department of the Navy, the State of Rhode Island, and the EPA on March 23, 1992. The FFA outlines response action requirements under the Department of Defense (DOD) IR program at NETC Newport. The FFA was developed, in part, to ensure that environmental impacts associated with past activities at NETC Newport are thoroughly investigated and remediated, as necessary.

NETC Newport facilities were initially studied under the Department of the Navy's Assessment and Control of Installation Pollutants (NACIP) program. The NACIP program was established to identify and control environmental contamination from past use and disposal of hazardous substances at Naval

installations. The NACIP program was part of the DOD IR program, similar to the U.S. EPA's Superfund program authorized by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). When Congress amended the law by passing the Superfund Amendments and Reauthorization Act of 1986 (SARA), DOD installations were required to ensure their IR program was not just similar to, but was consistent with CERCLA requirements. As soon as NETC Newport was added to the NPL in 1989, that alignment was implemented and CERCLA terms and procedures were adopted. However, between 1980, when NACIP was initiated, and 1989, NACIP terms and procedures were used.

The NACIP program consisted of three phases: Phase I - Initial Assessment Study (IAS), Phase II - Confirmation Study (CS), and Phase III - Remedial Measures. The CERCLA process consists of three principal phases: Preliminary Assessment/Site Investigation, RI/FS, and Remedial Design/Remedial Action. A more detailed description of the CERCLA/IR process being employed at NETC is shown on Figure 1.

A chronology is presented below of relevant site activities, environmental studies, and the interaction between the Rhode Island Department of Environmental Management (RIDEM), the EPA, other regulators, and NETC Newport concerning IR program issues.

Mid-1960s - NETC discontinued burning oil tank bottom sludges generated from its tank farms when compliance with more stringent air pollution control regulationswas required.

Unknown Date - The NETC Newport shoreline was closed to shellfishing due to concerns about bioaccumulation of contaminants in Narragansett Bay from sites at the facility.

Post 1971 - NETC installed the required scrubbers on its classified document incinerator.

April 1973 - The Shore Establishment Realignment (SER) Program resulted in drastic reductions in Navy personnel at NETC Newport and initiated the process of excessing (selling) large portions of the base's real estate.

September 11, 1980 - The NACIP program was initiated. The purpose of this program was to systematically identify, assess, and control environmental contamination from past use and disposal of hazardous substances at Navy and Marine Corps installations.

1982 - RIDEM adopted hazardous waste regulations that classified waste oil as a hazardous waste.

March 1983 - NETC Newport's IAS was completed. Eighteen potentially contaminated sites were identified.

1984 - The Navy ceased using Tanks 53 and 56 at Tank Farm Five for waste oil storage.

1984 - The Defense Environmental Restoration Program (DERP) was established to promote and coordinate efforts to evaluate and cleanup contamination at DOD installations. A major element of the program was the establishment of the IR program. The IR program involves investigating and cleaning up contaminated sites in compliance with the procedural and substantive requirements of CERCLA, as amended by SARA, as well as regulations promulgated under these acts or by applicable state law.

1986 - RIDEM implemented new regulations for operating and closing underground storage tanks used to hold oils and hazardous materials.

May 1986 - The CS for NETC Newport was completed at the following six sites:

- McAllister Point Landfill (Site 01),
- Melville North Landfill (Site 02),
- Tank Farm One (Site 07),
- Tank Farm Four (Site 12),
- Gould Island Disposal Area (Site 14), and
- Gould Island Electroplating Shop (Site 17).

1987 - A Tank Closure Plan for Tanks 53 and 56 located at Tank Farm Five was completed (Environmental Resource Associates).

1988 - A Technical Review Committee (TRC) was convened to facilitate communicatiing information about IR activities to be undertaken at NETC Newport. TRC members included representatives from the U.S. Navy, EPA Region I, RIDEM, the City of Newport, the Towns of Portsmouth and Middletown, and local citizens groups.

November 21, 1989 - NETC Newport was listed on the NPL.

1989 - A Phase I RI/FS Work Plan for four NETC Newport sites was prepared. These sites included:

- McAllister Point Landfill (Site 01),
- Old Fire Fighting Training Area (Site 09),
- Tank Farm Four (Site 12), and
- Tank Farm Five (Site 13).

1989 - The Phase I RI/FS Work Plan was also developed for Site 02 - Melville North Landfill. This Work Plan was undertaken pursuant to the Navy's authority under CERCLA, Executive Order 12580, and the DERP. The Melville North Landfill was excessed (or sold) by the Navy prior to being listed on the NPL and is being addressed by the Navy as a Formerly-Used Defense Site (FUDS).

1990 - A Community Relations Plan was issued for NETC Newport by the Navy. Pubic Information Repositories were also established to allow public access to NETC Newport documents.

June 1991 - A groundwater investigation was conducted under the tank closure investigation of Tanks 53 and 56 at Tank Farm Five.

November 1991 - The draft Phase I RI and Risk Assessment Report on the four NETC Newport sites and Melville North Landfill was completed.

March 1992 - The FFA was signed. The FFA outlines the legal framework for conducting the IR activities; spells out roles and responsibilities among the Navy, the State of Rhode Island, and the EPA; and identifies the tasks necessary to carry out cleanup activities and the schedules for their implementation.

July 1992 - A draft Study Area Screening Evaluation (SASE) Work Plan to investigate six suspected sites at NETC Newport was completed. The sites include:

- Coddington Cove Rubble FW Area (Site 04),

Tank Farm One (Site 07),

- NUSC Disposal Area (Site 08),
- Tank Farm Two (Site 10),
- Tank Farm Three (Site 11), and
- Gould Island Electroplating Shop (Site 17).

Summer 1992 - The contents of Tanks 53 and 56 at Tank Farm Five were removed and the tank interiors cleaned.

August 1992 - The Defense Fuel Supply Point (DFSP) initiated investigations of Tank Farm One, Tank Farm Two, and Tank Farm Three.

September 1992 - The draft Phase II RI/FS Work Plan for the four NETC Newport and Melville North Landfill sites was completed.

October 1992 - A soils investigation was conducted under the tank closure investigation of Tanks 53 and 56 at Tank Farm Five.

December 1992 - The final SASE Work Plan to investigate three suspected sites at NETC Newport was completed. The sites include:

- Coddington Cove Rubble FW Area (Site 04),
- NUSC Disposal Area (Site 08), and
- Gould Island Electroplating Shop (Site 17).

May 1993 - A Preliminary Assessment for Derecktor Shipyard (Site 19) was issued. (Derecktor Shipyard is discussed in Section 5 and on Table 1).

November 1995 - Written invitations and public notices were published in _____ and _____announcing an informational meeting on November 30 to solicit public interest in membership on the Restoration Advisory Board (RAB). The RAB community members would join regulatory members (former TRC members) in reviewing IR documents and ensuring the cleanup process precedes apace.

November 30, 1995 - A RAB informational meeting was held at the Officer's Club to acquaint the public with the RAB's role in the IR program. Forty people signed the sign-in sheet. During the period following the meeting, eighteen people submitted applications to become RAB community members.

February 8, 1996 - The first RAB meeting was held to introduce the members to each other, provide initial training about the NETC sites and cleanup process, and discuss substantive and administrative issues that the RAB would deal with.

March 27, 1996 - NETC conducted a RAB community member training session, including presentations on the CERCLA process and the Navy's Relative Risk Ranking process.

April 17, 1996 - The RAB elected Joe McEnness as Community Co-chair and heard a presentation by EPA on the ecological risk assessment process.

The information in this chronology was obtained from the 1983 IAS, the 1986 CS, the 1988 Draft Tank Closure Plan for Tanks 53 and 56, the 1991 Phase I RI/FS, the March 23, 1992 FFA, and a review of information available in RIDEM files.

3.0 INITIAL ASSESSMENT STUDY

The 1983 IAS, conducted by Envirodyne Engineers, Inc. of St. Louis, Missouri, identified sites where contamination was suspected to exist and which could pose a threat to public health or the environment. This study included a review of archival and activity records, interviews with activity personnel, an on-site survey of the activity, and an off-site activity investigation.

Eighteen potential sites were identified in the IAS. The Envirodyne IAS concluded that no further action was required at three of the areas (Sites 04, 08, and 09). Two other areas (Sites 03 and 16) were found to be outside of the scope of the NACIP program and were not discussed in the report. Further investigation was recommended at the remaining 13 areas. Of the eighteen sites, eight (Sites 02, 03, 05, 06, 14, 15, 16, and 18) are outside the real property boundaries of NETC Newport.

4.0 CONFIRMATION STUDY

A CS was conducted at six of the thirteen areas recommended in the IAS for further investigation. The CS, conducted by Loureiro Engineering Associates of Avon, Connecticut, and completed in 1986,included the following six sites:

- McAllister Point Landfill (Site 01),
- Melville North Landfill (Site 02),
- Tank Farm One (Site 07),
- Tank Farm Four (Site 12),
- Gould Island Disposal Area (Site 14), and
- Gould Island Electroplating Shop (Site 17).

The CSs were completed in two steps: a Verification Step and a Characterization Step. The objectives of the Verification Step were to identify sources of contamination, assess the presence of specific toxic and hazardous materials, and assess general site hydrogeology characteristics. The objective of the Characterization Step was to determine the extent of any contamination identified in the Verification Step and to recommend corrective actions.

Verification Step results were summarized in a report dated May 8, 1984, and Characterization Step results were discussed in a report dated July 26, 1985. The final CS findings, which included results of both the Verification and Characterization steps, were presented in a report dated May 15, 1986. That report concluded that the Gould Island Electroplating Shop required no further study.

5.0 STUDY AREA SCREENING EVALUATIONS

The objective of a Study Area Screening Evaluation (SASE) investigation is to assess the presence and types of environmental contamination at locations that are listed as NETC Study Areas. The SASEs assess the presence of hazardous substances, the nature of materials disposed of, and the potential for releases of contamination. SASE results will determine whether further Study Area investigation is warranted through an RI/FS.

SASE investigations are planned at the following seven areas:

- Coddington Cove Rubble Fill Area (Study Area 04),
- Tank Farm One (Study Area 07),
- NUWC Disposal Area (Study Area 08),
- Tank Farm Two (Study Area 10),
- Tank Farm Three (Study Area 11),
- Gould Island Electroplating Shop (Study Area 17), and
- Derecktor Shipyard (Site 19).

Under the terms of the 1992 FFA, the Derecktor Shipyard was added to the list of sites to be investigated. Because it was added late in the investigative process, Derecktor Shipyard became a candidate for an SASE.

6.0 RI/FS STATUS

Several RI/FS activities have occurred. Others are planned for the future.

6.1 PHASE I REMEDIAL INVESTIGATION

A Phase I Remedial Investigation (RI), begun in 1989 and completed in 1992, was conducted at five NETC Newport sites. A summary of Phase I RI activities conducted at each of the sites is provided in Table 3. Findings of the TRC-EC1992 report are summarized below.

- McAllister Point Landfill (Site 01) - Significant levels of SVOCs and metals were found in the main landfill area of the site and in the groundwater directly beneath it. Elevated levels of metals and PCBs were detected in sediments and mussels collected off shor near the main landfill area. In the north central site area, where an incinerator reportedly once operated, elevated levels of SVOCs and low levels of dioxins and furans were found. The southern portion of the site contained elevated levels of SVOCs, metals, and petroleum-related contamination. A floating oil layer, VOCs, and PCBs were observed in groundwater beneath this area.

- Melville North Landfill (Site 02) - Significant VOC contamination was detected in subsurface soil in the central and southern portions of the site, and in the area of the former lagoons. SVOCs were found in the northwest, central, and southern portions of the site. Highest metals were detected at or below the water table from the north-central and central to south-central portions of the site. In groundwater, the highest levels were found south of the access road (petroleum-related VOCs) and in the north-

central and central areas (VOCs and metals).

- Old Fire Fighting Training Area (Site 09) - Elevated levels of SVOCs were detected in subsurface soils from the northern, western, and eastern portions of the site. Low levels of pesticides were detected in surface soils across the site. The highest metals reading from subsurface soil were collected from the northern portion of the site. Organics levels in groundwater were not significantly elevated but three monitoring wells contained groundwater exhibiting a petroleum odor or water surface sheen. Metals were found in groundwater samples throughout the site; the highest levels were from wells in the central to northern portions of the site.

- Tank Farm Four (Site 12) - Elevated levels of metals were found in groundwater, surface water, and water taken from the tanks. Some petroleum contamination was found in soils adjacent to the oil-water separator and along the site access road.

- Tank Farm Five (Site 13) - Most subsurface contamination was found at Tank 53, where VOCs and petroleum contamination were found in groundwater and petroleum was floating on the water in monitoring wells. Metals were found in groundwater and in the oil-water separator.

6.2 PHASE II REMEDIAL INVESTIGATION/FEASIBILITY STUDY

A Phase II Remedial Investigation/Feasibility Study (RI/FS) was initiated in 1992 for each of the five sites investigated during the Phase I RI/FS. The planned Phase II investigations would build on the existing database at each site and provide site-specific information sufficient to support informed risk management decisions regarding any necessary or appropriate site remedies.

The Phase II work plan includes the site-specific Field Sampling Plan (FSP), a Quality Assurance Project Plan (QAPP), and a project Health and Safety Plan (HASP). It also includes discussions of NETC Newport and site-specific background information that reflect the results of the Phase I RI, a discussion of ARARs and preliminary action alternatives, a Data Evaluation and Assessment Plan addressing data management and the RI Report outline, a supplemental Human Health Risk Assessment Plan, and an Ecological Risk Assessment Plan. A discussion of treatability studies and pilot testing was also included in a Treatability Study and Feasibility Study Plan.

As of April 1996, because of funding constraints, work to complete the Phase II RI for some sites has been suspended.

A summary of the planned Phase II investigation activities is provided in Table 4.

6.3 ADDITIONAL RI/FS ACTIVITIES

The FS activities have been divided among four areas:

- McAllister Point Landfill (Site 01),
- Melville North Landfill (Site 02),
- Old Fire Fighting Training Area (Site 09), and
- Tank Farms Four and Five (Sites 12 and 13).

These activities have separate schedules and will be issued as separate reports. The FS reports will identify appropriate site-specific remediation options; evaluate them against specific, objective criteria established in the National Contingency Plan; and identify whether each approach meets those criteria.

Detailed schedules for conducting these studies is included in Figure 4, which has not been amended by this update from the original TRC report, at NETC's request. Those schedules are under negotiation.

7.0 REMOVAL ACTIONS

Removal actions are implemented when an emergency situation is discovered (such as explosives or leaking drums) or when the scope of the problem is limited and clearly identified. Removal actions can also mitigate contamination caused by hazardous waste by ensuring, through early action, that the contaminated area does not grow much larger, as it would if action waited until all components of the area of investigation are completed.

NETC has undertaken several removal actions:

- Melville North Landfill (Site 02) - Two removal actions have been completed to address soil "hot spot" areas, in 1993 and in 1995.

- Melville North Area (Site 05) - The site was cleaned under a removal action in 1983.

- Tank Farm Four (Site 12) - In 1995, Tank 42 was cleaned, secured, and ballasted with water.

- Tank Farm Five (Site 13) - All 11 tanks were cleaned in 1995.

- Gould Island Bunker (Site 15) - _____.

- Structure #214 - Melville North (Site 18) - The site was clenaed under a removal action in 1983.

Derecktor Shipyard (Site 19) - Removal actions were undertaken in 1993 (waste and debris) and in 1995 (sandblast materials).

8.0 RECORDS OF DECISION

Records of Decision (RODs), which contain NETC's selected cleanup options, have been issued for the following areas:

- McAllister Point Landfill (Site 01) - A source control operable unit ROD was issued in September 1993. It required the construction of a low-permeability RCRA subtitle C-type cap to prevent precipitation from reaching the contaminated materials inside the landfill. The cap construction is underway and is scheduled to be completed in October 1996.

- Tank Farm 5 (Site 13 - Tanks 53 and 56) - An interim ROD was issued in 1992 that addressed migration of contaminated groundwater. A groundwater extraction system was installed to remove and treat contaminated groundwater.

9.0 PROJECT ORGANIZATION AND MANAGEMENT

The Naval Facilities Engineering Command (NAVFACENGCOM) has overall responsibility for the IR program at NETC Newport. This responsibility includes identifying the level of funding available for the program and generating primary and secondary documents through contractors. Technical work for NETC Newport is managed by the Northern Division (NORTHDIV), Engineering Field Division (EFD) of NAVFACENGCOM. NORTHDIV is headquartered in Lester, Pennsylvania.

Several support activities are available to advance NAVFACENGCOM's mission. Support activities include the Naval Facilities Engineering Support Center (NFESC), formerly the Naval Energy and Environmental Support Activity (NEESA) among others. In general, NFESC's technical and administrative support includes providing guidance documents, technical review and recommendations of RI/FS and Remedial Action plans, field sampling teams if necessary, maintenance of program documents, IR-related training, and other program and technical analyses, as requested.

Coordination and day-to-day management of the NETC Newport IR program is the responsibility of the NORTHDIV Remedial Project Manager (RPM). The RPM is the prime contact for remedial or other response actions at sites in the IR program. The RPM's responsibilities include:

a. Coordinating, directing and reviewing the IR program work.

b. Assuring compliance with the National Contingency Plan (NCP).

c. Recommending action for decisions.

In addition, the RPM meets with representatives from the EPA, RIDEM, project contractors, and other members of the RAB on a regular basis to discuss the progress of the program. Members of the RAB review and comment on the execution of the IR program at NETC Newport.

10.0 DELIVERABLES AND SCHEDULE

A projected schedule for completing SASEs is provided as Figure 4A (Sites 4, 8 and 17). A projected schedule for completing the RI/FS is provided as Figures 4B (Sites 1, 9, 12, and 13). A projected schedule for completion of RI/FS activities at Site 1 - McAllister Point Landfill is provided as Figure 4C. Projected schedules were prepared in accordance with Section XIV of the March 23, 1992 FFA between the U.S. Environmental Protection Agency, the State of Rhode Island, and the U.S. Department of the Navy.

A summary of Primary and Secondary Documents as defined in the FFA is provided as Table 5. Flow charts indicating the process that is used to review Primary and Secondary Documents are provided as Figures 5A and 5B, respectively. Secondary Documents include those documents that are discrete portions of the Primary Documents and are typically support documents.

11.0 REFERENCES

Department of the Navy Environmental Restoration Plan for Fiscal Years 1994-1998, October 1993.

Envirodyne Engineers, Inc., 1983. Initial Assessment Study Naval Education and Training Center, Newport, RI, prepared for the Navy.

Environmental Resource Associates, Inc., 1987. Tank Closure Plan for Tanks 53 and 56, Tank Farm 5, Naval Education and Training Center, Newport, RI, prepared for the Navy.

Loureiro Engineering Associates, 1986. Confirmation Study Report, Naval Education and Training Center, Newport, RI, prepared for the Navy.

TRC Environmental Corporation, November, 1991, Draft Final Report Remedial Investigation, Naval Education and Training Center, Newport, Rhode Island, prepared for the Northern Division, Naval Facilities Engineering Command.

TABLE 1
NETC HAZARDOUS WASTE SITES STATUS

No.	Site	Characteristics/Studies/Plan of Action
1	McAllister Point Landfill (also a SWMU)	mid-1950s - mid-1970s - The landfill received all waste generated at the Newport Naval Complex. This site contains waste from operations (machine ships, electroplating, etc.), Navy housing, and ships homeported in Newport. Materials disposed would be principally domestic refuse as well as spent acids, paints, solvents, waste oils (lube, diesel, and fuel), and PCB-contaminated oil. IAS (1983) and CS (1986). A 1993 ROD resulted in construction of a RCRA cap (1995-1996). On shore impacts were investigated under the RI/FS (draft final RI - July 1994; draft FS - October 1994.)
2	Melville North Landfill (also a SWMU)	WWII - 1955 - The landfill received domestic refuse as well as spent acids, waste paints, solvents, waste oils, and PCBs. Several areas were covered with oil and oily sludge. The site was excessed in 1983 and is owned by Melville Marine Industries. IAS (1983) and CS (1986). Two removal actions (limited excavation of hot spots) were conducted in 1993 and 1995. NETC will initiate an RI/FS as a Formerly Used Defense Site (FUDS) in spring 1996.
3	Substation #14 - Transformer Vault Melville North	1980 - 1982 - IAS (1983) determined the site to be outside the scope of NACIP. NETC excessed the site, which was within structure 214, in 1974. NETC cleaned the site under a removal action in 1983. Any future activity will be undertaken by the Army Corps of Engineers.
4	Coddington Cove Rubble Fill	1978 - 1982 - This rubble dump contains inert items including scrap lumber, tires, wire, cable, and empty paint cans. An IAS, conducted in 1983, recommended no further action. The site will be investigated under an SASE. Determined as a low risk site.
5	Melville North Area	1978 - 1982 - Twenty barrels of waste oil were stored on an asphalted area. Oil was spilled in the area. The site was excessed in 1974. An IAS was conducted in 1983. NETC cleaned the site under a removal action in 1983. Any future activity will be undertaken by the Army Corps of Engineers.
6	STP Sludge Drying Bed	1982-1983 - The site is located in Melville North at the old sewage treatment plant, where oily waste was disposed. Although the site was excessed in 1974, NETC conducted an IAS in 1983. The structure within Building 242 was demolished in 1986. NETC retains an easement, however, the site is being investigated by the Army Corps of Engineers.
7	Tank Farm One (Also a SWMU)	WWII-1970 - The site is located in Portsmouth. The tank farm contains six 60,000-barrel underground storage tanks (USTs) for diesel oil, fuel oil, jet fuel, 100-octane gasoline, and aviation fuel. Approximately 6,000 gallons of tank bottom oil sludge generated from cleaning the tanks was reportedly disposed in on-site pits. IAS (1983) and CS (1986). The site is currently being investigated under a Defense Fuel Supply Point contract.
8	Naval Undersea Warfare Center (NUWC) Disposal Area (formerly NUSC Disposal Area)	Early 1970s - The site contains rubble, inert materials including scrap lumber, tires, wire, cable, and empty paint cans. An IAS, conducted in 1983, recommended no further action. NETC will investigate the site under an SASE.

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TABLE 1
NETC HAZARDOUS WASTE SITES STATUS
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No.	Site	Characteristics/Studies/Plan of Action
9	Old Fire Fighting Training Area	WWII-1972 - The site is located on Coaster's Harbor Island, where waste oils were used to train personnel in fire fighting operations. In a 19___, a removal action resulted in excavating and removing contaminated soils. An IAS, conducted in 1983, recommended no further action. Oil was discovered at the site in 1987 during a geotechnical investigation. RI/FS work was initiated in 1989. Draft final RI - August 1994; draft FS - November 1994.
10	Tank Farm Two (also a SWMU)	WWII-1970 - The site, located in Portsmouth, contains eleven 60,000-barrel USTs for fuel. Approximately 100,000-175,000 gallons of sludge were disposed in on site pits. An IAS was conducted in 1983. The site is being investigated under a Defense Fuel Supply Point contract.
11	Tank Farm Three (also a SWMU)	WWII-1970 - The site, located in Portsmouth, contains seven 60,000-barrel USTs for fuel. Tank sludge bottoms were disposed in burning chambers. The burning chambers had steel sides and sand bottoms. An IAS was conducted in 1983. The site is being investigated under a Defense Fuel Supply Point contract.
12	Tank Farm Four (also a SWMU)	WWII-1970s - The site, located in Portsmouth, contains twelve 60,000-barrel USTs for fuel. Approximately 10,000-190,000 gallons of tank sludge bottoms were reportedly disposed of on site. IAS (1983) and CS (1986). In 1993, NETC conducted a removal action by cleaning and demolishing an oil-water separator. In 1995, Tank 42 was cleaned and ballasted with water. The remaining tanks will be closed beginning in the summer of 1996. A sitewide RI/FS is expected to be completed in 1997.
13	Tank Farm Five (also a SWMU)	WWII-1970 - The site, located in Middletown, contains eleven 60,000-barrel USTs for fuel. Tank bottom sludge was burned on site. Approximately 10,000-175,000 gallons of oily sludge was reportedly disposed of on site. IAS (1983). ROD (1992) for an interim action resulting in construction of a groundwater extraction system (1994) that is still operating. In 1993, NETC conducted a removal action by cleaning and demolishing an oil-water separator. All 11 tanks were cleaned, secured, and ballasted with clean water in 1995. A sitewide RI/FS is expected to be completed in 1997.
14	Gould Island Disposal Area (also a SWMU)	WWII - The site contains all wastes generated on Gould Island, consisting of domestic trash, metal scrap, wood, pipes, rusted drums, two diesel oil tanks, and concrete. Wastes from electroplating and degreasing operations may also have been disposed of at the site. An IAS (1983) and CS (1986). The site will be investigated by the Army Corps of Engineers.
15	Gould Island Bunker #11	WWII - Drums at the site contained possible hazardous waste from electroplating operations. An IAS was conducted in 1983. NETC cleaned the site under a removal action in _____. Any further activity will be conducted by the Army Corps of Engineers.

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TABLE 1
NETC HAZARDOUS WASTE SITES STATUS
PAGE 3 OF 3

No.	Site	Characteristics/Studies/Plan of Action
16	Gould Island Incinerator	WWII - The site is a six-ton capacity incinerator. The 1983 IAS determined the site to be outside the scope of NACIP. Any further action will be conducted by the Army Corps of Engineers.
17	Gould Island Electroplating Shop (also a SWMU)	WWII - The building contains wastes generated from electroplating and degreasing operations. Wastes included muriatic acid, chromic acid, copper cyanide, sodium cyanide, sodium hydroxide, nickel sulfate, Anodex cleaner, and degreasing solvents. IAS (1983) and CS (1986). NETC will initiate an SASE.
18	Structure 214 - Melville North	1980-1982 - The site is the area adjacent to structure 214 where drums of waste oil and oily spillage were found. IAS (1983). NETC excessed the site, which was within structure 214, in 1974. NETC cleaned the site under a removal action in 1983. Any further action will be conducted by the Army Corps of Engineers.
19	Derecktor Shipyard	1940-1973 - The Navy used the shipyard and piers. 1979-1992 - The Navy leased the property to Robert Derecktor. Wastes found included used sand blast grit; asbestos-containing material; PCBs; petroleum, oil, and lubricants; adhesives; strippers; and acids. In 1993, NETC conducted a Preliminary Assessment and removed waste and debris. Another removal action in 1995 removed used sandblast material.

TABLE 2
SUMMARY OF NETC HAZARDOUS WASTE SITE ACTIVITIES

No.	Site	Present Owner	Actions
1	McAllister Point Landfill	Navy	IAS/CS, ROD (93), RI/FS
2	Melville North Landfill	Private	IAS/CS, removals (93, 95), RI/FS
3	Substation #14 - Transformer Vault - Melville North	Private	removal (1983) [4]
4	Coddington Cove Rubble Fill	Navy	IAS, SASE[1]
5	Melville North Area	Private	IAS, removal[4]
6	STP Sludge Drying Bed	Private	IAS [4]
7	Tank Farm One	Navy	IAS/CS[2]
8	NUWC Disposal Area	Navy	IAS, SASE[1]
9	Old Fire Fighting Training Area	Navy	IAS, removal (__), RI/FS[3]
10	Tank Farm Two	Navy	IAS[2]
11	Tank Farm Three	Navy	IAS[2]
12	Tank Farm Four	Navy	IAS/CS, removal (95), RI/FS
13	Tank Farm Five	Navy	IAS, ROD (92), removal (95), RI/FS
14	Gould Island Disposal Area	State	IAS/CS, RI/FS[4]
15	Gould Island Bunker #11	State	IAS, removal (__)[4]
16	Gould Island Incinerator	State	[4]
17	Gould Island Electroplating Shop	Private	IAS/CS, SASE[1]
18	Structure #214 - Melville North	Private	removal (1983)[4]
19	Derecktor Shipyard	Navy	PA, removals (93 and 95), on-shore SASE[1]

(1) A Study Area Screening Evaluation (SASE) will be performed to determine the need for an RI/FS.

(2) These tank farms are being investigated under a DFSP contract. SASEs await findings of the DFSP investigations.

(3) A Confirmation Study was not performed. During a geotechnical investigation of the site, evidence of oil-contaminated soil was found so the site is being studied under an RI/FS.

(4) Investigation/clean up to be handled by the Army Corps of Engineers.

TABLE 3

SUMMARY OF PHASE I ACTIVITIES
NETC NEWPORT, RHODE ISLAND

Site	Geophysics Methods	Soil Gas Points	Surface Soil Samples On/Off-Site	Boring Number/ Samples	Wells Numbers/ Samples	Test Pit/Tank Samples	Ground Water Samples	Surface Water Sediment Samples	Structure Samples (soil/water)
Site-01 McAllister Point Landfill	EM Magnetometer	-	15/2 TCL/TAL*	13/32 TCL/TAL*	9/17 TCL/TAL*	-	12 TCL/TAL	-	-
Site-02 Melville North Landfill	EM Magnetometer	-	17 TCL/TAL*	13/25 TCL/TAL*	5/13 TCL/TAL*	4/- TCL/TAL	5 TCL/TAL	-/3 TCL/TAL	-
Site-09 Old Fire Fighting Training Area	EM Magnetometer	81	6 TCL/TAL*	7/15 TCL/TAL*	5/10 TCL/TAL*	-	5 TCL/TAL	-	-
Site-12 Tank Farm Four	-	61	28 TCL/TAL* TPH	-	8/5 TCL/TAL*	-/23 TCL/TAL*	8 TCL/TAL	4/6 TCL/TAL*	3/2 TCL/TAL*
Site-13 Tank Farm Five	-	51	26 TCL/TAL* TPH	-	6/12 TCL/TAL*	-/21 TCL/TAL*	13 TCL/TAL*	5/5 TCL/TAL*	2/1 TCL/TAL*

Note: "-" indicates that the activity was not conducted at the site.
TCL indicates analysis for Target Compound List parameters.
TAL indicates analysis for Target Analyte List parameters.
* indicates that some samples were analyzed for a subset of TCL/TAL parameters, or for additional parameters.
TPH indicates analysis for Total Petroleum Hydrocarbons.

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TABLE 4

SUMMARY OF PROPOSED PHASE II ACTIVITIES
NETC NEWPORT, RHODE ISLAND

Site	Geophysics Methods	Soil Gas Points	Surface Soil Samples On/Off-Site	Boring Number/ Samples	Wells Numbers/ Samples	Test Pit/Tank Samples	Ground Water Samples	Surface Water Sediment Samples	Structure Samples (soil/water)
Site-01 McAllister Point Landfill	EM Seismic Refraction	30	32 TCL/TAL	13/26-39 TCL/TAL	9/18-27 TCL/TAL	-	27 TCL/TAL 3 Filt. TAL	-	-
Site-09 Old Fire Fighting Training Area	EM Magnetometer Seismic Refraction	-	12 TCL/TAL	11/22-33 TCL/TAL	6/12-18 TCL/TAL	4/8-12 TCL/TAL	14 TCL/TAL 3 Filt. TAL	-	-
Site-12 Tank Farm Four	-	-	23 TCL/TAL	-	8/16-24 TCL/TAL	-	21 TCL/TAL 3 Filt. TAL	9 TCL/TAL Sediment List (1)	3 TCL/TAL
Site-13 Tank Farm Fiv	-	-	29 TCL/TAL	-	6/12-18 TCL/TAL	-	22 TCL/TAL 3 Filt. TAL	13 TCL/TAL Sediment List (1)	-

Note: "-" indicates that the activity was not conducted at the site.
"Filt" indicates field filtered samples for dissolved metals analysis.
TCL indicates sample will be analyzed for Target Compound List.
TAL indicates sample will be analyzed for Target Analyte List.
(1) Sediment List is composed of TCL, TAL, total organic carbon, and acid volatile sulfides.

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TABLE 5

PRIMARY AND SECONDARY DOCUMENT SUMMARY

Primary Documents

Study Area Screening Evaluation Report
(SASE)

RI/FS Work Plan
(and any RI/FS Work Plan addendums for subsequent phases)

Phase I RI Report
(including Sampling and Data Results, Risk Assessment, and Preliminary Analysis of Alternatives)

Phase II RI Work Plan

Phase II RI Report
(including Sampling and Data Results, Risk Assessment Addendum, if warranted by the scope of the Remedial Investigation)

RI/FS Report
(including Treatability and Pilot Study(s), if warranted by the scope and findings of the Remedial Investigation and the Initial Screening and Detailed Analysis of Alternatives)

Proposed Plan

Remedial Design (RD) Work Plan

Sixty Percent (60%) Remedial Design
(including QA/QC and Contingency Plan)

Final Remedial Design
(including Remedial Action Work Plan and Final Construction QA/QC Project Plan)

Project Closeout Report

RI/FS Scope of Work

RD/RA Scope of Work

TABLE 5

PRIMARY AND SECONDARY DOCUMENT SUMMARY

Secondary Documents

Study Area Screening Evaluation (SASE) Work Plan

Initial Screening of Alternatives

Detailed Analysis of Alternatives

Treatability and Pilot Study Work Plan
(if warranted by the scope and findings of the RI/FS)

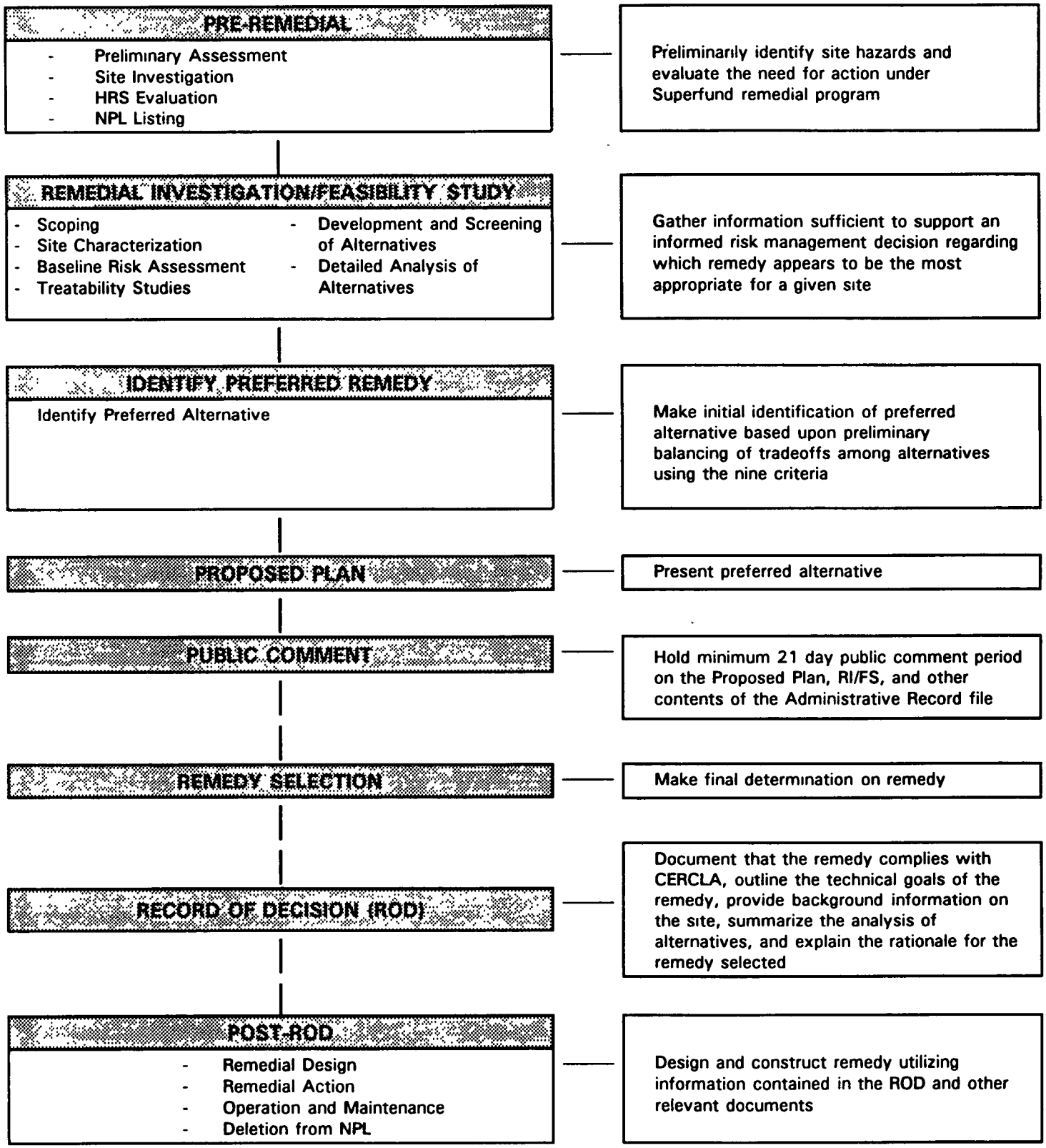
Treatability and Pilot Study(s)
(if warranted by the scope and findings of the RI/FS)

Sampling and Data Results

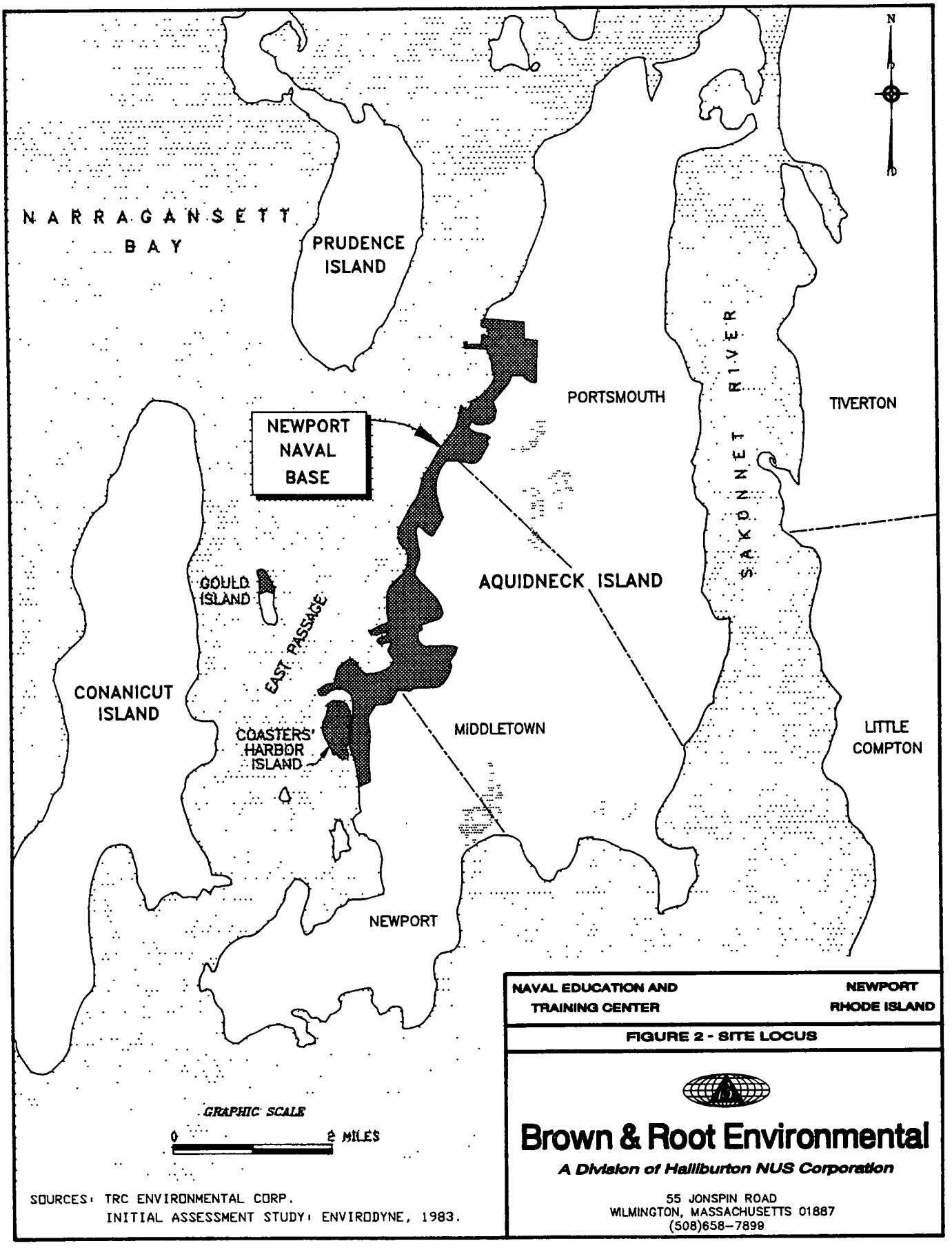
Remedial Action Work Plan

Pre-Final Remedial Design (85%)

FIGURE 1
REMEDIAL RESPONSE PROCESS



Sources: US EPA and TRC-EC


N
NARRAGANSETT BAY
PRUDENCE ISLAND
PORTSMOUTH
TIVERTON
SAKONNET RIVER
NEWPORT NAVAL BASE
GOULD ISLAND
EAST PASSAGE
AQUIDNECK ISLAND
CONANICUT ISLAND
COASTERS' HARBOR ISLAND
MIDDLETOWN
LITTLE COMPTON
NEWPORT
GRAPHIC SCALE
0
2 MILES
SOURCES: TRC ENVIRONMENTAL CORP.
INITIAL ASSESSMENT STUDY: ENVIRODYNE, 1983.
NAVAL EDUCATION AND TRAINING CENTER
NEWPORT RHODE ISLAND
FIGURE 2 - SITE LOCUS
Brown & Root Environmental
A Division of Halliburton NUS Corporation
55 JONSPIN ROAD
WILMINGTON, MASSACHUSETTS 01887
(508)658-7899

ACAD:D:\NETC\11X17_SM.DWG

TO PORTSMOUTH
1 MILE

STUDY AREA 07 –
TANK FARM NO. 1

STUDY AREA 10 –
TANK FARM NO. 2

SITE 03 – SUBSTATION #14 – TRANSFORMER VAULT – MELVILLE NORTH
SITE 05 – MELVILLE NORTH AREA
SITE 06 – STP SLUDGE DRYING BED
SITE 18 – STRUCTURE 214 – MELVILLE NORTH

WEST MAIN ROAD

SITE 02 –
MELVILLE NORTH
LANDFILL

STUDY AREA 11 –
TANK FARM NO. 3

SITE 12 –
TANK FARM FOUR

PORTSMOUTH
MIDDLETOWN

TO PORTSMOUTH
6 MILES

STATE ROUTE 114

STATE ROUTE 138

GREEN LANE

SITE 13–
TANK FARM FIVE

NAVAL UNDERWATER
WARFARE CENTER (NUWC)

DEFENSE HIGHWAY

ROUTE 114–138

STUDY AREA 19–
DERECKTOR SHIPYARD

MIDDLETOWN
NEWPORT

ADMIRAL
KALBFUS RD.

TO FORT ADAMS
6 MILES

STUDY AREA 08–
NUWC DISPOSAL
AREA

STUDY AREA 04–
CODDINGTON COVE
RUBBLE FILL AREA

CONNELL MEMORIAL ROAD

TO NEWPORT–JAMESTOWN
BRIDGE TO PROVIDENCE
31 MILES

NARRAGANSETT

BAY

SITE 01–
McALLISTER POINT
LANDFILL

CODDINGTON COVE

COASTERS
HARBORS
ISLAND

SITE 09–
OLD FIRE FIGHTING
TRAINING AREA

SITES 14, 16 –
GOULD ISLAND DISPOSAL AREA
GOULD ISLAND INCINERATOR

STUDY AREA 17–
GOULD ISLAND
ELECTROPLATING SHOP
(CORNER OF BLDG. 32)

SITE 15 –
GOULD ISLAND
BUNKER # 11

GOULD
ISLAND

GRAPHIC SCALE

0′ 4,000′

SOURCE: TRC ENVIRONMENTAL CORP.

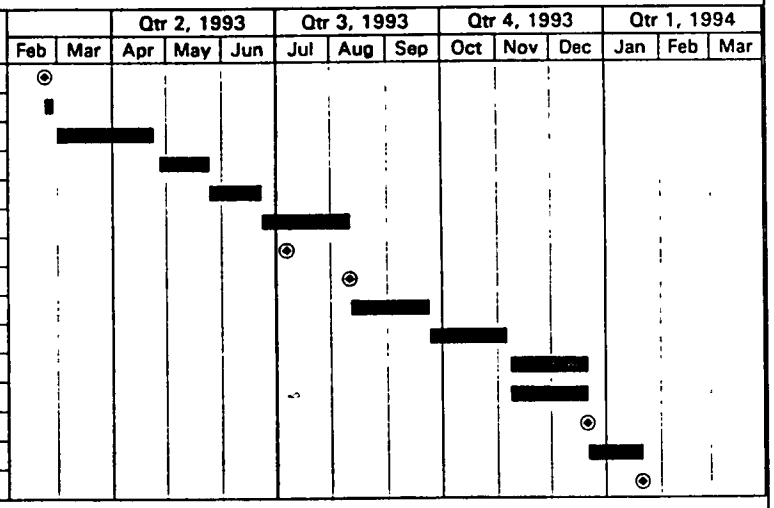
NAVAL EDUCATION AND TRAINING CENTER — NEWPORT RHODE ISLAND

FIGURE 3 - HAZARDOUS WASTE SITES LOCUS PLAN

Brown & Root Environmental
A Division of Halliburton NUS Corporation
55 JONSPIN ROAD
WILMINGTON, MASSACHUSETTS 01887
(508)658–7899

NETC - Newport, Rhode Island
SASE Activities - Sites 4, 8 and 17
Estimated Project Schedule

ID	Name	Duration	Scheduled Start	Scheduled Finish
1	SASE Project Authorization	0d	February 22, 1993	February 22, 1993
2	Field Team Mobilization	1w	February 22, 1993	February 26, 1993
3	Field Investigations	8w	March 1, 1993	April 23, 1993
4	Laboratory Analysis	4w	April 27, 1993	May 24, 1993
5	Data Validation	4w	May 25, 1993	June 22, 1993
6	Prepare Draft SASE Report	7w	June 23, 1993	August 11, 1993
7	Transmitt Sampling and Data Results	0d	July 7, 1993	July 7, 1993
8	Submit Draft SASE Report	0d	August 11, 1993	August 11, 1993
9	EPA, RIDEM Review of Report	6w	August 12, 1993	September 23, 1993
10	Navy Response to Comments	6w	September 24, 1993	November 5, 1993
11	Meet to Discuss Comments	6w	November 8, 1993	December 21, 1993
12	Prepare Draft Final SASE Report	6w	November 8, 1993	December 21, 1993
13	Submit Draft Final SASE Report	0d	December 21, 1993	December 21, 1993
14	EPA/State Letter of Concurrence	4w	December 22, 1993	January 21, 1994
15	Final SASE Report (No Dispute Resolution)	0d	January 21, 1994	January 21, 1994



Scheduled Start Date for Task 1 is Dependant on Award Negotiation and Project Authorization

Critical

Noncritical

Milestone

December, 1992

TRC Environmental Corporation

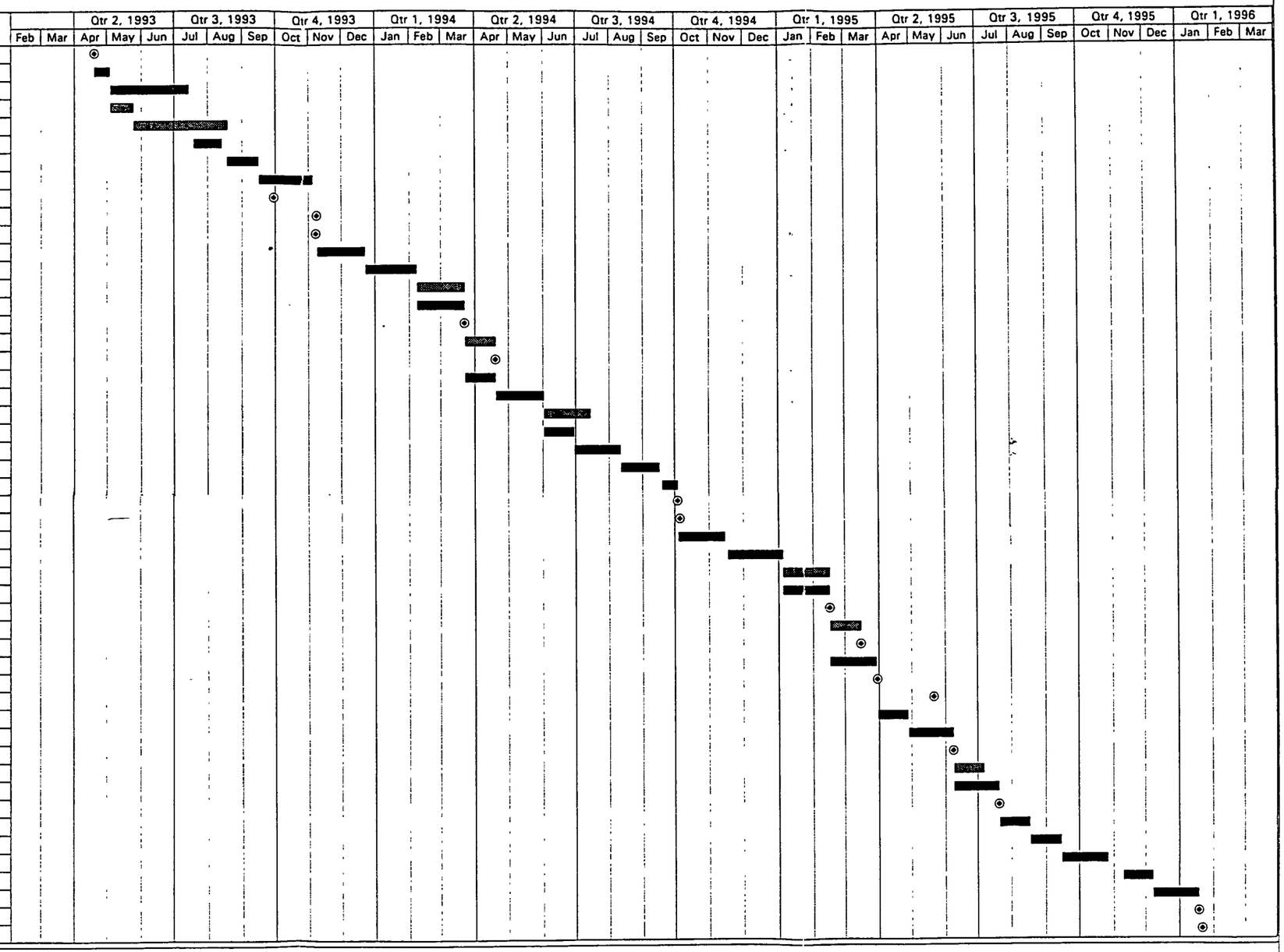
FIGURE 4A

NETC - Newport, Rhode Island
RI/FS Activities - Sites 1, 9, 12 and 13
Estimated Project Schedule

Scheduled Start Date for Task 1 is Dependant on Award Negotiation and Project Authorization

Critical ▬ Milestone ◉
Noncritical ▬

ID	Name	Duration	Scheduled Start	Scheduled Finish
1	RI/FS Project Authorization	0d	April 19, 1993	April 19, 1993
2	Field Team Mobilization	2w	April 19, 1993	May 3, 1993
3	Field Investigations	10w	May 4, 1993	July 14, 1993
4	Off-Shore Biota Investigations	3w	May 4, 1993	May 24, 1993
5	Biota Analyses/Validation	12w	May 25, 1993	August 18, 1993
6	Laboratory Analysis	4w	July 19, 1993	August 13, 1993
7	Data Validation	4w	August 18, 1993	September 15, 1993
8	Prepare Draft Phase II RI Report	7w	September 16, 1993	November 4, 1993
9	Transmit Sampling and Data Results	0d	September 29, 1993	September 29, 1993
10	Submit Draft Phase II RI Report	0d	November 8, 1993	November 8, 1993
11	FFA Scheduled Due Date Draft Phase II RI	0d	November 7, 1993	November 7, 1993
12	EPA, RIDEM Review of Report	6w	November 9, 1993	December 22, 1993
13	Navy Response to Comments	6w	December 23, 1993	February 7, 1994
14	Meet to Discuss Comments	6w	February 8, 1994	March 22, 1994
15	Prepare Draft Final Phase II RI Report	6w	February 8, 1994	March 22, 1994
16	Submit Draft Final Phase II RI Report	0d	March 22, 1994	March 22, 1994
17	EPA/State Letter of Concurrence	4w	March 23, 1994	April 19, 1994
18	Final Phase II RI Report (No Dispute Res.)	0d	April 19, 1994	April 19, 1994
19	Initial Screening of Alternatives	4w	March 23, 1994	April 19, 1994
20	EPA/RIDEM Review	6w	April 20, 1994	June 1, 1994
21	Navy Response to Comments	6w	June 2, 1994	July 14, 1994
22	Detailed Analysis of Alternatives	4w	June 2, 1994	June 29, 1994
23	EPA/RIDEM Review	6w	June 30, 1994	August 11, 1994
24	Navy Response to Comments	5w	August 12, 1994	September 16, 1994
25	Prepare Draft Phase II RI/FS Report	11d	September 19, 1994	October 3, 1994
26	Submit Draft Phase II RI/FS Report	0d	October 3, 1994	October 3, 1994
27	FFA Scheduled Due Date Draft Phase II RI/FS	0d	October 5, 1994	October 5, 1994
28	EPA, RIDEM Review	6w	October 4, 1994	November 14, 1994
29	Navy Response to Comments	6w	November 17, 1994	January 4, 1995
30	Meet to Discuss Comments	6w	January 5, 1995	February 15, 1995
31	Prepare Draft Final Phase II RI/FS Report	6w	January 5, 1995	February 15, 1995
32	Submit Draft Final Phase II RI/FS Report	0d	February 15, 1995	February 15, 1995
33	EPA/State Letter of Concurrence	4w	February 16, 1995	March 15, 1995
34	Final Phase II RI/FS Report (No Dispute Res.)	0d	March 15, 1995	March 15, 1995
35	Prepare Draft Proposed Plan	6w	February 16, 1995	March 29, 1995
36	Submit Draft Proposed Plan	0d	March 30, 1995	March 30, 1995
37	FFA Scheduled Due Date Draft Proposed Plan	0d	May 21, 1995	May 21, 1995
38	EPA, RIDEM Review	4w	March 31, 1995	April 27, 1995
39	Prepare Draft Final Proposed Plan	6w	April 28, 1995	June 8, 1995
40	Submit Draft Final Proposed Plan	0d	June 8, 1995	June 8, 1995
41	EPA/State Letter of Concurrence	4w	June 9, 1995	July 6, 1995
42	Prepare Final Proposed Plan	6w	June 9, 1995	July 20, 1995
43	Submit Final Proposed Plan	0d	July 20, 1995	July 20, 1995
44	Prepare Draft ROD	4w	July 21, 1995	August 17, 1995
45	EPA, RIDEM Review	4w	August 18, 1995	September 14, 1995
46	Prepare Draft Final ROD	6w	September 15, 1995	October 26, 1995
47	Public Comment on ROD/Proposed Plan	4w	November 10, 1995	December 7, 1995
48	Draft Responsiveness Summary	6w	December 8, 1995	January 18, 1996
49	Final ROD	0d	January 18, 1996	January 18, 1996
50	FFA Scheduled Due Date Final ROD	0d	January 21, 1996	January 21, 1996



December, 1992

TRC Environmental Corporation

FIGURE 4B

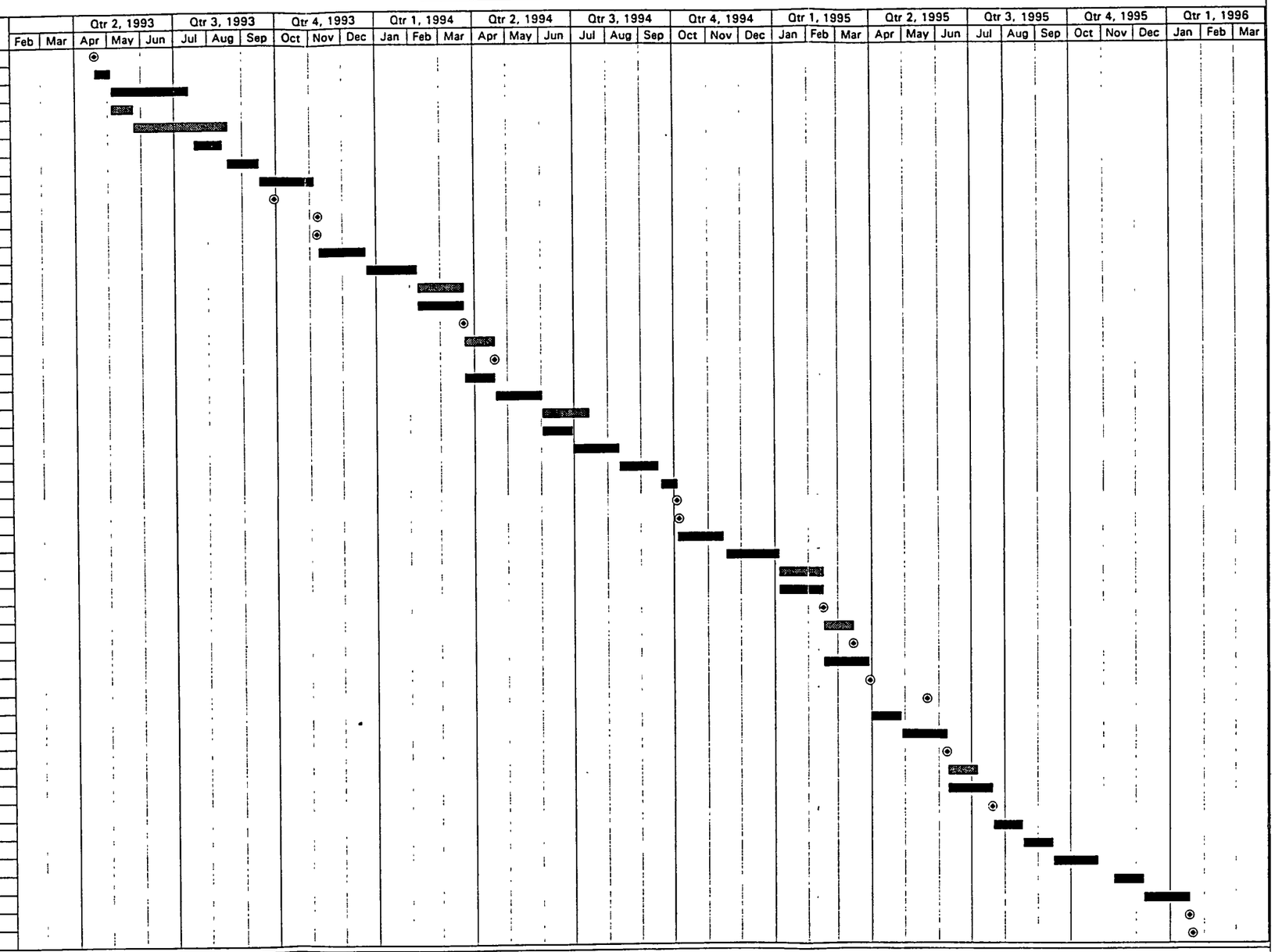
NETC - Newport, Rhode Island
RI/FS Activities - Site 1 - McAllister Point Landfill
Estimated Project Schedule

Scheduled Start Date for Task 1 is Dependant on Award Negotiation and Project Authorization

Critical ▬▬▬ Milestone ◉

Noncritical ▬▬▬

ID	Name	Duration	Scheduled Start	Scheduled Finish
1	RI/FS Project Authorization	0d	April 19, 1993	April 19, 1993
2	Field Team Mobilization	2w	April 19, 1993	May 3, 1993
3	Field Investigations	10w	May 4, 1993	July 14, 1993
4	Off-Shore Biota Investigations	3w	May 4, 1993	May 24, 1993
5	Biota Analyses/Validation	12w	May 25, 1993	August 18, 1993
6	Laboratory Analysis	4w	July 19, 1993	August 13, 1993
7	Data Validation	4w	August 18, 1993	September 15, 1993
8	Prepare Draft Phase II RI Report	7w	September 16, 1993	November 4, 1993
9	Transmit Sampling and Data Results	0d	September 29, 1993	September 29, 1993
10	Submit Draft Phase II RI Report	0d	November 8, 1993	November 8, 1993
11	FFA Scheduled Due Date Draft Phase II RI	0d	November 7, 1993	November 7, 1993
12	EPA, RIDEM Review of Report	6w	November 9, 1993	December 22, 1993
13	Navy Response to Comments	6w	December 23, 1993	February 7, 1994
14	Meet to Discuss Comments	6w	February 8, 1994	March 22, 1994
15	Prepare Draft Final Phase II RI Report	6w	February 8, 1994	March 22, 1994
16	Submit Draft Final Phase II RI Report	0d	March 22, 1994	March 22, 1994
17	EPA/State Letter of Concurrence	4w	March 23, 1994	April 19, 1994
18	Final Phase II RI Report (No Dispute Res.)	0d	April 19, 1994	April 19, 1994
19	Initial Screening of Alternatives	4w	March 23, 1994	April 19, 1994
20	EPA/RIDEM Review	6w	April 20, 1994	June 1, 1994
21	Navy Response to Comments	6w	June 2, 1994	July 14, 1994
22	Detailed Analysis of Alternatives	4w	June 2, 1994	June 29, 1994
23	EPA/RIDEM Review	6w	June 30, 1994	August 11, 1994
24	Navy Response to Comments	5w	August 12, 1994	September 16, 1994
25	Prepare Draft Phase II RI/FS Report	11d	September 19, 1994	October 3, 1994
26	Submit Draft Phase II RI/FS Report	0d	October 3, 1994	October 3, 1994
27	FFA Scheduled Due Date Draft Phase II RI/FS	0d	October 5, 1994	October 5, 1994
28	EPA, RIDEM Review	6w	October 4, 1994	November 14, 1994
29	Navy Response to Comments	6w	November 17, 1994	January 4, 1995
30	Meet to Discuss Comments	6w	January 5, 1995	February 15, 1995
31	Prepare Draft Final Phase II RI/FS Report	6w	January 5, 1995	February 15, 1995
32	Submit Draft Final Phase II RI/FS Report	0d	February 15, 1995	February 15, 1995
33	EPA/State Letter of Concurrence	4w	February 16, 1995	March 15, 1995
34	Final Phase II RI/FS Report (No Dispute Res.)	0d	March 15, 1995	March 15, 1995
35	Prepare Draft Proposed Plan	6w	February 16, 1995	March 29, 1995
36	Submit Draft Proposed Plan	0d	March 30, 1995	March 30, 1995
37	FFA Scheduled Due Date Draft Proposed Plan	0d	May 21, 1995	May 21, 1995
38	EPA, RIDEM Review	4w	March 31, 1995	April 27, 1995
39	Prepare Draft Final Proposed Plan	6w	April 28, 1995	June 8, 1995
40	Submit Draft Final Proposed Plan	0d	June 8, 1995	June 8, 1995
41	EPA/State Letter of Concurrence	4w	June 9, 1995	July 6, 1995
42	Prepare Final Proposed Plan	6w	June 9, 1995	July 20, 1995
43	Submit Final Proposed Plan	0d	July 20, 1995	July 20, 1995
44	Prepare Draft ROD	4w	July 21, 1995	August 17, 1995
45	EPA, RIDEM Review	4w	August 18, 1995	September 14, 1995
46	Prepare Draft Final ROD	6w	September 15, 1995	October 26, 1995
47	Public Comment on ROD/Proposed Plan	4w	November 10, 1995	December 7, 1995
48	Draft Responsiveness Summary	6w	December 8, 1995	January 18, 1996
49	Final ROD	0d	January 18, 1996	January 18, 1996
50	FFA Scheduled Due Date Final ROD	0d	January 21, 1996	January 21, 1996



December, 1992

TRC Environmental Corporation

FIGURE 4C

FIGURE 5A

PRIMARY DOCUMENT REVIEW

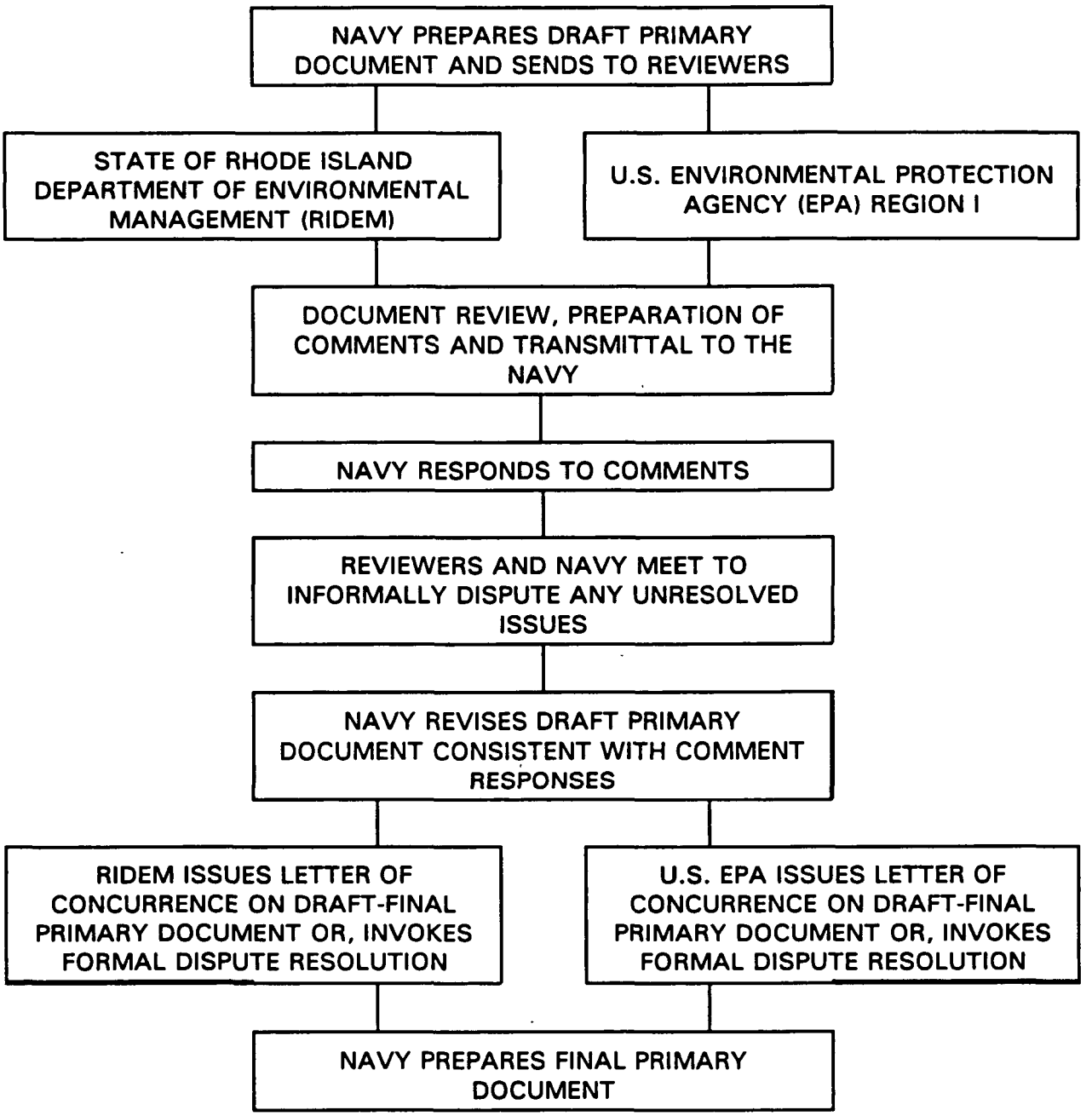


FIGURE 5B

SECONDARY DOCUMENT REVIEW